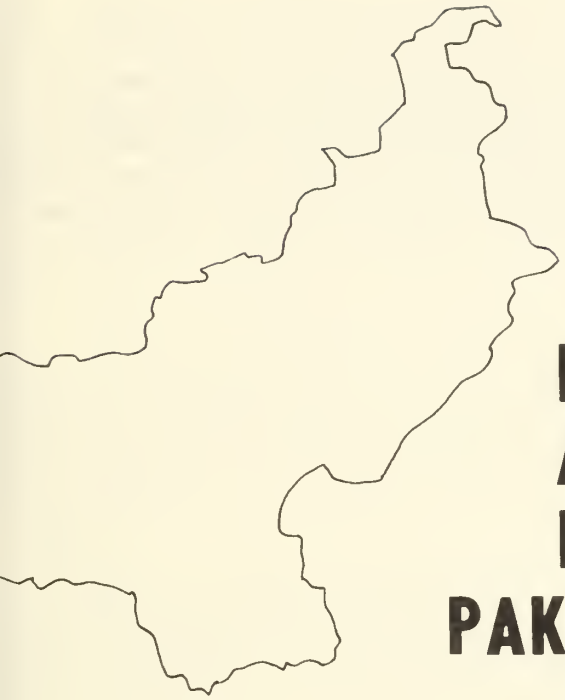
Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

ERS-Foreign 217



EXPANDING AGRICULTURAL TRADE FOR PAKISTAN

Projections and Implications to 1974/75 and 1984/85

LIBRARY
RECEIVED
MAY 31

U.S. DEPARTMENT OF AGRICULTURE
ECONOMIC RESEARCH SERVICE

PREFACE

This report is based on the results of a study recently conducted by the Social Sciences Research Centre in Lahore, Pakistan. The Centre, under contract with the Economic Research Service, U.S. Department of Agriculture, has published its findings in a book, Long-term Projections of Supply and Demand for Selected Agricultural Products in Pakistan, Oxford University Press, Lahore, Pakistan, December 1967. The findings in this study are those of the contractor and do not necessarily coincide with views of the U.S. Department of Agriculture. Some of the trends and analyses presented here are based on information from additional sources.

CONTENTS

	Page
Summary	iii
Introduction	1
Why Demand Will Increase	1
Meeting Future Needs	1
Market Opportunities	2
Rice	4
Wheat	7
Coarse Grains	7
Vegetable Oils	8
Tallow	8
Tobacco	9
Dairy Products	9
Pulses	9
Eggs	10
Meat	10
Sugar	10
Export Production	10
Jute	11
Cotton	11
New Agricultural Exports	12

Washington, D. C. 20250 May 1968

SUMMARY

Pakistan, the third most populous country in Asia, is expected to become a billion dollar market for imported agricultural commodities in the next 15 years, according to projections made in a recent study (cited in Preface). The success of Pakistan's efforts to increase exports of food, fibers, and manufactured products will determine its ability to pay for the large quantities of grain that the study indicates must be imported in the future. Financing from foreign loans and grants is expected to play an important role in paying for imported items in the near future. In the 1970's, Pakistan hopes to lessen the need for financial assistance from external sources.

Higher yields from increased use of fertilizer, improved seeds, and effective farm planning can be expected to supply only part of the greater demand. Larger export earnings are needed from intensive horticultural crops which utilize the labor resources and bring a high return per hectare. Over 4 million hectares of additional cropland are expected to be brought under cultivation.

Pakistan's agricultural production has been diversified in recent years to provide a greater variety of food for export and domestic consumption. The emphasis placed upon private investments for the development of industries has encouraged the use of local and foreign capital to build new factories, including fertilizer plants and food processing facilities.

Agricultural commodities account for over 70 percent of the country's total exports and about one-third of its imports. Pakistan is the world's leading exporter of jute--a product it sells raw or manufactured to over 80 countries. A sharp rise in exports of jute fabrics and cotton textiles enabled the country's total exports to reach $605 million in 1966.

EXPANDING AGRICULTURAL TRADE FOR PAKISTAN--PROJECTIONS AND IMPLICATIONS TO 1974/75 and 1984/85

By John B. Parker, Agricultural Economist
Foreign Regional Analysis Division
Economic Research Service

INTRODUCTION

The principal supply and demand projections and their implications for Pakistan, the United States, and other countries concerned with the market for agricultural products in Pakistan are presented here. The study's projections are analyzed in view of the information available for Pakistan.

Why Demand Will Increase

By 1985, the population of Pakistan is expected to exceed 200 million, compared with a 1967 estimate of 120 million. The urban population is expected to exceed 25 million by 1971--a proportionally faster growth rate than the total. The supply of farm products in the commercial market must grow rapidly to meet even the minimum needs of the rapidly growing urban sector. Income per capita is expected to increase from about $84 in 1967 to $120 by 1971 and perhaps over $200 by 1975.

The demand for milk, fruits, and vegetables has increased much faster in recent years among urban residents than the demand for traditional grain foods. The ability of a greater proportion of the population to buy more preserved food and higher quality products has enabled many manufacturers of food products to flourish. The output of less perishable items like biscuits, potato chips, and candy more than doubled from 1960 to 1966. The output of cigarettes exceeded 30 billion pieces in 1966/67, compared with only 9.3 billion in 1959/60.

Meeting Future Needs

The completion of the giant Mangla Dam in West Pakistan a year ahead of schedule and a rapid increase in fertilizer use are indications that substantial gains in food production may be achieved soon. In 1966, farmers in Pakistan provided about 17 million metric tons of grains for domestic consumption (See Appendix). This was about 2 million tons below the estimated minimum needs and imports did not completely supply the demand. Consequently, stocks declined. Pakistan's grain imports in 1967 reached a new peak of approximately 3 million metric tons. However, the Social Sciences Research Centre study indicates that the growth in farm production will enable Pakistan to become almost self-sufficient in grains within the next 4 years. Recent production reports from Pakistan indicate that this situation may occur even sooner.

By the end of the 1970's, the capacity for increased production through improved farming methods will become more fully utilized and the production growth rate will probably decline. However, population growth is expected to continue at a rapid pace and higher incomes will increase the demand for food. Although an accelerated shift away from the current dependence upon rice and wheat products to a somewhat more diversified diet is anticipated, grain imports are expected to expand.

Imports of fertilizer reached a peak value of $40 million in 1967, with over half supplied by the United States. Larger imports may occur before 1970 provided financing can be arranged. Fertilizer produced in Kuwait from the byproducts of the petroleum industry is expected to be imported in addition to larger supplies of American and other foreign fertilizer.

By 1971, Pakistan expects to have facilities for producing 1 million metric tons of fertilizer nutrients a year. The new plant at Mari, completed in late 1967, has a capacity of 76,500 nutrient tons. Other large fertilizer plants are under construction with the assistance of American and Japanese capital and technology.

Pakistan will attempt to meet future food needs by two methods. First, farming methods which will contribute to higher yields will be tried when capital for inputs is available. Second, the production of intensive crops and products of light industry, particularly for export, is marked for tremendous expansion. The foreign exchange from additional exports could contribute to the payment for additional food imports.

Many farmers have found the production of fruits more profitable than the traditional grain crops. The rapid increase in the urban population and improvements in the transportation system should enable farmers to easily market larger crops of horticultural products. The growing demand for fruit by "oil-rich" markets of the Arabian Peninsula has enabled Pakistan to export more tropical and canned fruit to this area. Banana production increased from 678,000 tons in 1958 to about 1.2 million tons in 1963 and over 1.6 million tons in 1965. The production of bananas is expected to double in the 1970's. Guar gum has developed into a $5 million export item since 1963. Some other promising exports include tobacco, onions, seeds, and various fruits.

The production of citrus fruits in Pakistan has doubled since 1958 and is expected to increase from the 1967 level of over 400,000 tons per year to about 1 million tons by 1984. Oranges account for about 90 percent of the citrus production. Sandy soils near the Thar Desert from Multan to Hyderabad can support more citrus groves with expanded irrigation. North of Rawalpindi, new orchards of apples, peaches, cherries, and pears have been planted.

MARKET OPPORTUNITIES

The Social Sciences Research Centre study indicates that the net imports of food grains by 1985 may reach 11 million metric tons (fig. 1). Pakistan is also expected to become a major importer of a number of other farm products including meat, powdered milk, butter, and sugar. Imports of vegetable oils and tallow are likely to continue their rapid growth.

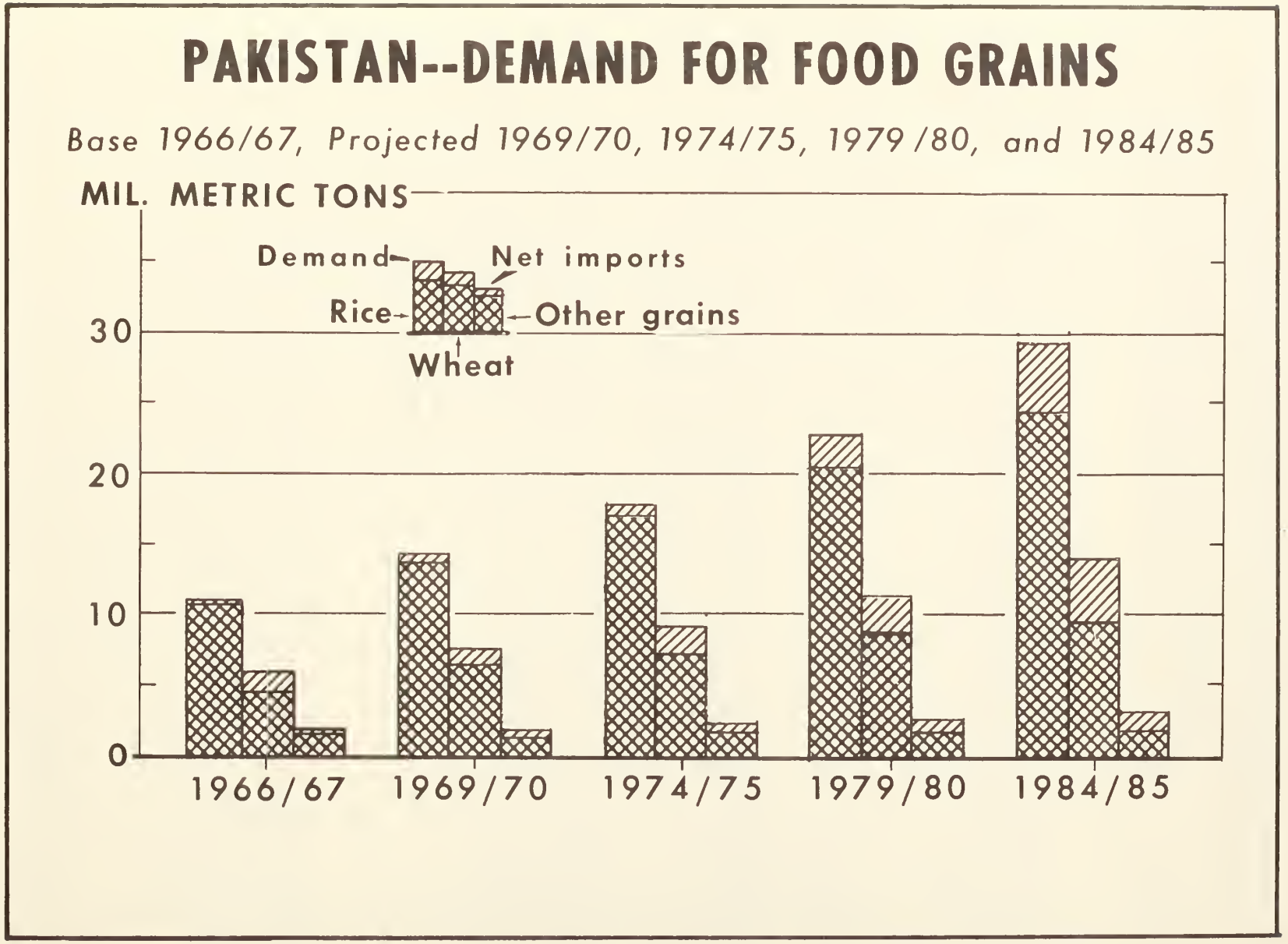

PAKISTAN--DEMAND FOR FOOD GRAINS
Base 1966/67, Projected 1969/70, 1974/75, 1979/80, and 1984/85
MIL. METRIC TONS
Demand
Net imports
Rice
Other grains
Wheat
30
20
10
0
1966/67
1969/70
1974/75
1979/80
1984/85

Figure 1

Implications for exports of agricultural commodities from the United States to Pakistan are more striking for 1980 and beyond. Pakistan may well offer a potential market for up to $500 million worth of American agricultural commodities during some years between 1975 and 1985 (table 1). Also, exports of fertilizer and insecticides by the United States to Pakistan may increase sharply in the next few years. Table 2 shows the increased exports of selected agricultural commodities from the United States to Pakistan, 1959-67.

Rice

Pakistan is the world's third largest producer and consumer of rice, ranking after Mainland China and India. Until the record crop of 18.6 million tons of paddy rice was harvested in 1967/68, Pakistan and Japan each consumed about the same quantity of rice. It is the predominant food in the diet of the 65 million people in East Pakistan, providing over 85 percent of their daily caloric intake.

Historically, Pakistan has been a net rice importer. In the early 1950's, the United States was the major source of Pakistan's rice imports. During 1956-58, Pakistan's rice imports averaged nearly 400,000 metric tons annually. Imports from the United States under Title I of P.L. 480 accounted for about half during this period. Burma was also an important supplier of rice for East Pakistan through 1964. In 1965 Mainland China became the major source of rice imports suppling most of the 186,000 metric tons of rice in fiscal year 1967. None was imported from the United States.

However, Pakistan has become a net exporter of rice in the last 2 years. In 1966, Pakistan's exports of basmati extra long-grain rice, which commands premium prices on world markets, increased to about 211,000 tons, valued at $42 million. This increase was due to larger shipments to the USSR and the Middle East.

The recent net export position is the result of higher yields. Since 1963, the area planted in rice has ranged between 10.3 million and 10.9 million hectares, but the additional land that can be planted in rice is limited. Rice plantings in 1967 were about 20 percent above the level recorded a decade ago, but production is up by more than 30 percent. The average yield in 1966 was about 1,063 kilos per hectare--about one-fourth the yields obtained in many leading rice-growing areas of the world. However, yields in rice are projected to almost double in the next 20 years. More extensive use of higher yielding varieties, fertilizer, and irrigation water are planned.

Despite the recent success at increasing production, the results of the study indicate that the rapid population growth accompanied by a significant rise in per capita consumption is expected to cause imports to grow more rapidly than production after 1975. Per capita consumption of rice is expected to increase from the 97 kilos recorded in 1966 to over 110 kilos by 1985. Total consumption is projected to increase to 17.8 million metric tons of milled rice by 1975 and 29.2 million tons by 1985, compared with 11 million metric tons in 1966. As a result, Pakistan's net imports of rice are projected to reach three-fourths of a million tons by 1974-75, 2.2 million metric tons

Table 1.--Pakistan: Projected supply, demand, and net trade for specified commodities, fiscal years 1970, 1975, 1980, and 1985 with actual fiscal year 1965

Items	FY 1965			FY 1970			FY 1975			FY 1980			FY 1985		
	Supply	Demand	Net imports	Supply	Demand	Net imports	Supply	Demand	Net imports	Supply	Demand	Net imports	Supply	Demand	Net imports
	Thousand metric tons														
Rice, milled	10,975	11,166	191	13,798	14,055	257	17,011	17,750	739	20,526	22,739	2,210	24,344	29,206	4,862
Wheat	5,318	6,262	944	6,257	7,428	1,171	7,266	9,085	1,819	8,348	11,241	2,893	9,503	13,981	4,478
Other cereals	1,196	1,450	254	1,352	1,718	366	1,510	2,070	560	1,666	2,502	836	1,814	3,010	1,196
Total grains ...	17,489	18,878	1,389	21,407	23,201	1,794	25,787	28,905	3,118	30,540	36,482	5,939	35,661	46,197	10,536
Pulses	374	525	151	455	659	104	536	839	303	618	1,086	468	699	1,412	713
Total food grains	17,863	19,403	1,540	21,862	23,860	1,896	26,323	29,744	3,421	31,158	37,568	6,407	36,360	47,609	11,249
Meat	580	580	--	665	770	105	766	1,050	284	881	1,479	598	1,013	2,104	1,091
Milk	6,096	6,096	--	6,791	8,502	1,711	7,565	11,767	4,202	8,428	16,872	8,444	9,389	24,461	15,072
Butter	149	149	--	166	193	27	185	258	73	206	358	152	230	503	273
Eggs	35	35	--	37	45	8	39	67	28	42	100	58	44	151	107

Note: Fiscal years ending June 30 used in this table.

Source: Social Sciences Research Centre Study, Lahore.

Table 2.--United States: Agricultural exports to Pakistan by value and major commodities, annual 1959-67

Year	Wheat	Vegetable oils	Feed grains	Rice	Tallow	Dairy products	Tobacco	Cotton	Other	Total
	Thousand dollars									
1959	36,335	8,208	5	7,602	735	361	766	2,092	346	56,450
1960	70,892	7,805	89	12,867	2,366	1,529	1,448	1,604	414	99,014
1961	70,057	10,968	78	6,765	2,713	1,016	1,816	1,492	872	95,777
1962	46,265	25,087	3,010	--	4,413	1,391	1,928	7,335	1,571	91,000
1963	121,155	28,684	299	8	4,207	3,471	2,255	2,594	2,181	164,854
1964	106,819	25,476	74	8	5,624	3,940	854	1,883	1,932	146,610
1965	91,982	32,600	--	--	3,067	3,334	2,194	2,932	4,019	140,129
1966	49,040	8,347	--	--	3,530	679	675	671	9,601	72,543
1967	111,553	18,513	17,202	--	8,145	641	2,801	155	3,438	162,448

by 1979/80, and about 5 million tons during the mid-1980's. Recent reports indicate that more rapid growth in production than anticipated may well result in some reduction in the volume of imports projected in the study.

Wheat

West Pakistan accounts for most of the wheat production, consumption, and imports. Farmers in the Indus Valley planted about 14 million acres of wheat in 1966 for harvest in the spring of 1967. About 40 percent of the area planted was irrigated. The introduction of Mexi-Pak varieties enabled some farmers to obtain higher yields. Reports on the very rapid adoption and successful production with new high-yielding varieties for the 1968 harvest indicate that wheat production in Pakistan may increase more rapidly than projected.

Wheat accounted for about 63 percent of the caloric intake in West Pakistan in 1965, compared with only 1 percent in East Pakistan. The share of calories supplied by wheat is expected to drop below 50 percent in West Pakistan as the diet becomes more diversified. However, the continued expansion of sales of bakery products in urban areas of East Pakistan will cause the per capita use of wheat in that area to increase.

About one-third of the wheat consumed in Pakistan during the last 5 years was imported. Imports increased from 537,700 metric tons in 1962 to 1.7 million tons in 1965. Smaller arrivals from the United States caused imports to decline to 1.1 million tons in 1966, and stocks declined sharply. The shipment of 1.5 million tons of wheat by the United States in 1967, plus 700,000 tons obtained from Australia, Canada, and Mainland China, increased total wheat imports to a record 2.2 million tons. Commercial purchases from Australia, Canada, and the United States accounted for over one-third of the wheat imports during 1967.

The total consumption of wheat is expected to increase from the recent level of around 6 million metric tons annually to about 7.3 million tons by 1970 and 9 million tons by 1975. By 1980, wheat consumption is projected to reach 11 million metric tons. As a result, imports of wheat are projected to increase slightly during the 1970's to about 3 million tons per year and reach 4.4 million tons by 1984/85. Imports in the future may be less than projected if the unprecedented success from the use of new varieties results in a more rapid production increase than indicated.

Coarse Grains

Total demand for coarse grains is expected to more than double in the next 12 years. The use of corn in 1967 is near 800,000 tons--or double the level of 5 years earlier. A rapid expansion in the poultry industry could cause the use of coarse grains to triple by 1980. At the same time, the use of new hybrid varieties of corn and grain sorghums on irrigated land, amply fertilized, should substantially boost future yields and total production.

In the next few years, the demand for imported corn is expected to increase. U.S. exports to Pakistan under P.L. 480 began with 134,000 tons of corn in December 1966 and totaled 404,750 tons for food use in fiscal 1967. To ease the shortage of wheat flour, the distribution of corn meal has increased. Pakistan was also a market for 50,000 tons of American grain sorghums in the first half of 1967 under Title I, P.L. 480.

Vegetable Oils

Vegetable oils have ranked next to wheat as the major American agricultural export to Pakistan since 1960. Soybean oil has become a popular ingredient of cooking oils and vegetable shortening in Pakistan.

Over half of the vegetable oils consumed in the last 2 years have been imported. In fiscal 1966, about 165,000 tons of vegetable oils, including 155,000 tons of soybean and cottonseed oil, were imported from the United States. Over 99 percent of Pakistan's growing imports of soybean oil in the last decade have come from the United States. In fiscal 1965, shipments of soybean oil and cottonseed oil by the United States under Title I of P.L. 480 to Pakistan reached a peak of 147,000 metric tons valued at $43.5 million. Shipments since that time, by this method of financing, have been less than half that level.

Various studies indicate that Pakistan could use a half million tons of vegetable oil by 1971. Pakistan's domestic output will probably supply about one-third of the consumption in the early 1970's. The output of rapeseed and mustardseed oil usually exceeds 50,000 tons annually. The output of cottonseed oil is increasing and should become the leading domestic source in a few years. The supply of sesame oil has declined in recent years because of the increased use of sesame by bakeries and the confectionery industry.

The growing consumption of vegetable shortening for cooking has contributed to the strong demand for soybean oil. Pakistan is likely to remain one of the three major markets for American soybean oil.

Tallow

The output of soap is expected to triple by the late 1970's. Most of the tallow needed for soap factories must be imported. Trade reports indicate that imports of tallow may exceed 65,000 tons by 1970. In the early 1960's, over 60 percent of the tallow imports came from the United States under Title I of P.L. 480. In 1965/66, Pakistan's commercial imports of American tallow reached 16,834 metric tons, compared with 5,770 tons during the previous fiscal year, while imports under P.L. 480 declined.

A cash market for American and Australian tallow has developed in Pakistan, but the continuation of this market on a cash basis depends upon the foreign exchange situation. Increased foreign exchange earnings from exports of Pakistani soap and cosmetics to the Arabian Peninsula may counteract, in part, the growing burden of financing the raw material import needs of soap and cosmetic manufacturers.

Tobacco

There were no large cigarette factories in Pakistan in 1947. By 1955, new cigarette factories were in operation and output reached 4,588 million pieces. By 1960, output had doubled and in 1965, it reached a new record of 22 billion pieces, increasing to about 25 billion pieces in 1966. Tobacco leaf production is increasing and there is a shift from darker types of tobacco, used by cottage industries, to flue-cured tobacco for cigarette factories.

The domestic demand for higher quality cigarettes is growing. Opportunities exist for exporting such cigarettes to neighboring countries. Therefore, Pakistan could become a somewhat larger market for imported leaf by 1970, despite the fact that local production may soon reach 200,000 metric tons.

Dairy Products

Climatic and other conditions limit the opportunities for profitable dairy production. Consequently, much of the milk served in cities of West Pakistan is provided by plants which use imported powdered milk. The United States, the Netherlands, and Australia are the major sources of Pakistan's powdered milk. Total imports of powdered milk and cream by Pakistan increased from 1,150 tons in 1959 for a value of $325,000 to 22,000 tons in 1963 valued at $4.6 million. The United States supplied 14,761 tons of this amount valued at $3.3 million. Imports of powdered milk in 1967 were higher than during the previous 2 years.

Total consumption of milk and milk products (whole milk equivalent) by 1984 is expected to reach 24 million tons--four times the level recorded in 1964/65. The proportion of milk supplied by imports in this period is expected to exceed 30 percent by 1975 and surpass 60 percent by 1984. If the import need indicated in the study is filled, more barter or other special trade arrangements with Eastern Europe and Oceania could occur.

The rapid expansion in school enrollment in Pakistan is expected to create a huge new distribution outlet for milk. Butter consumption is expected to grow because of its use with buns received by school children. The expanding ice cream industry and many new facilities for eating away from home will boost the demand for milk.

Pakistan has developed as a small market for American and European cheeses since 1959. Imports of cheese total about 500 tons annually for shops catering to tourist and foreigners. Cheese imports are expected to more than quadruple by 1975.

Pulses

About 2.4 million hectares of pulses are planted annually in Pakistan. Total production of pulses has been relatively stable in the last decade, ranging from 750,000 to 850,000 tons per year. Chickpeas, lentils, and dry beans are the leading items. The import demand for pulses is projected to be approximately 200,000 tons by 1969/70, 460,000 tons by 1980, and 700,000 tons

by 1985. While imports of dried beans and peas from North America and Europe are expected to grow, exports of mung beans and specialty pulse items are also expected to increase.

Eggs

The demand for eggs is projected to increase rapidly. Unless local poultry numbers increase more rapidly than planned, about half of the eggs consumed in Pakistan will be imported by the late 1970's. The total demand for eggs in 1979/80 is projected to 100,000 tons, including 58,000 tons of imported eggs.

Meat

Consumption of meat is expected to be near 758,000 metric tons by 1969/70 (including 100,000 tons of imported meat), compared with 571,000 tons in 1964/65. The demand for meat in Pakistan is projected to reach 1.5 million metric tons by 1979/80 and some 2 million metric tons, about half of which would be imported, by 1984/85.

Imports of canned meat by Pakistan now exceed $250,000 annually, including about $100,000 from the United States. Imports of frozen beef and mutton from Oceania and South America are expected to grow. Future trade agreements with Eastern Europe are believed likely to include an exchange of canned meat for Pakistani products. Beef and mutton imports from Afghanistan are expected to increase also. The number of broilers marketed is expected to more than triple in the next decade.

Sugar

Pakistan's sugar production has more than doubled since 1958. It is expected to do so again by 1984. The output of centrifugal sugar reached 538,000 tons in 1967/68. Demand is expected to increase more rapidly than domestic output; therefore, imports are expected to start climbing in the mid-1970's and exceed 300,000 tons by 1984/85. However, during most of the next decade, imports of sugar are expected to remain under the peak of 116,000 tons recorded in 1962.

EXPORT PRODUCTION

Jute and jute products still account for over half of Pakistan's exports. Because of market promotion efforts in many foreign countries, sales of jute fabrics and burlap have increased. The policy of diversification of commodities exported and foreign markets is expected to cause considerable changes in agricultural trade patterns.

Without adequate facilities for preserving food products and the long distance from Pakistan to major world markets, nonperishable products like jute, cotton, and wool have become the major exports. With the development of more advanced transportation and modern food industries, exports of other commodities have increased in importance.

Jute

Raw jute accounted for about 45 percent of total exports during the early 1960's. Although yearly fluctuations have been wide, diversification of foreign markets has facilitated an upward trend in jute exports, which increased from a value of $154.7 million in 1963 to about $180 million in 1966. Exports of jute products also increased from $54.3 million in 1963 to about $124 million in 1966.

Exports of unmanufactured jute are expected to increase slightly in the future, although they will probably remain below 1 million metric tons annually. Most of the additional jute harvest is likely to be exported as jute products. The growth rate is not likely to move at the pace recorded between 1963 and 1966, but expanded sales of burlap bags in Asia and Africa are planned.

Exports of unmanufactured jute to the European Common Market have remained relatively stable in recent years. The EEC buys about $50 million worth of jute from Pakistan annually, but less than one-fourth of this value is jute burlap. The United Kingdom and Mainland China each purchase $25 million or more worth of jute from Pakistan each year. Pakistan's jute exports to the United States declined from $14 million in 1963 to a low of $6 million in 1965. However, the United States is the leading market for Pakistan's exports of jute fabrics.

Demand for jute fabrics by the household furnishing industries in the United States and Western Europe is expected to enable Pakistan to increase exports. If current plans for expansion are carried out, the value of Pakistan's exports of jute fabrics could exceed $100 million by 1971--almost quadruple the $26.7 million recorded in 1964.

In addition, exports of jute burlap almost doubled from 1963, when the value was $37.5 million, to over $70 million in 1966. The use of jute bags by cotton pickers in Africa has expanded rapidly and marketing techniques by Pakistani exporters have resulted in good distribution, even in smaller markets such as Chad. Indonesia and Burma have also become larger customers for jute bags in recent years, partly for storing rice.

Purchases of jute by Eastern European countries have increased sharply since 1964. Further expansion of shipments to this area, which buys over $14 million worth of Pakistani jute, is scheduled through trade agreements.

Cotton

Cotton production in Pakistan is projected by the Social Sciences Research Centre to almost double in the next 15 years. More extensive use of fertilizers and other capital inputs with consequent higher yields may enable Pakistan to produce over 3 million bales of cotton by 1974 and 4 million bales by 1984. The use of cotton by domestic textile mills is projected to double by 1984.

In 1947, there were only 17 textile mills in Pakistan, with 170,000 spindles and 4,800 looms. By 1960, there were 90 units with 1.9 million

spindles and 30,500 looms. The textile industry accounted for 43 percent of the value added by the large and medium-scale industries in 1959/60. Profits from the textile industry, which served the demand in the country and successfully entered the export field, provided capital for private ventures in other industries. In 1966, the textile industry used about two-thirds of the cotton harvested in Pakistan.

A shift from exports of raw cotton to cotton textiles has occurred since 1963. The value for exports of cotton and cotton products combined increased from $92 million in 1963 to $150 million in 1966. The value for exports of cotton yarn and textiles increased from $18.5 million in 1963 to $53.8 million in 1965. By 1970, the export value of cotton, cotton yarn, and fabrics could exceed $200 million.

Mainland China and Hong Kong have accounted for about half of Pakistan's exports of raw cotton in the last 3 years. Japan, the United Kingdom, USSR, and France were also important markets.

NEW AGRICULTURAL EXPORTS

Through the development of more exports of intensive crops which bring a high return per hectare, Pakistan will be financially able to buy additional grain. Returns from mangoes, bananas, and oranges sometimes reach $2,000 per hectare, compared with less than $450 per hectare for wheat. In the future, Pakistan could become a significant exporter of canned pineapples, mangoes, and fruit juices.

Pakistan's exports of oranges, pears, and onions to the Arabian Peninsula and Bahrein have increased sharply since 1965. Aden and Saudi Arabia have each become markets for over $100,000 annually of Pakistani biscuits.

In 1966, Pakistan entered the flue-cured tobacco export field by exporting 1.1 million pounds of leaf to the United Kingdom. Guar gum, a product used as a filler in toothpaste and pharmaceuticals, has developed into a $5 million export. Exports of oilcake to Europe, spices to Asian countries, and processed foods to the Middle East are increasing.

APPENDIX

Table 3.--Pakistan: Volume of production, by commodities, average 1957-59 and annual 1954-67

Commodity	Average 1957-59	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967
	Thousand metric tons														
Rice, paddy	13,130	12,838	11,003	13,755	12,907	12,048	14,434	16,069	16,133	14,963	17,741	17,798	17,744	16,426	18,918
Wheat	3,727	3,669	3,213	3,392	3,662	3,586	3,932	3,938	3,847	4,129	4,215	4,196	4,625	3,971	4,187
Barley	160	145	124	145	132	172	175	151	137	134	145	124	130	96	122
Corn	476	435	460	471	449	490	488	446	495	488	530	531	543	590	800
Bajra (millet)	307	354	345	369	278	314	329	306	370	423	362	446	370	371	381
Jowar (sorghum)	211	224	253	259	186	215	233	222	249	252	238	293	274	277	295
Gram	681	625	667	744	728	699	616	637	646	660	716	643	709	583	584
Sugarcane	14,809	13,083	12,654	12,238	12,921	15,120	16,385	14,332	15,660	18,846	23,265	22,028	24,999	30,315	30,182
Sesame	32	37	38	34	27	35	35	31	38	34	34	31	31	36	43
Flaxseed	11	15	14	13	12	5	15	15	13	14	16	15	12	13	14
Rape and mustard	333	267	326	329	320	301	379	323	313	310	367	302	307	278	307
Cottonseed	615	603	668	648	630	585	631	647	697	782	897	808	856	925	1,012
Jute	1,074	845	1,180	1,001	1,125	1,088	1,008	809	1,264	1,143	1,066	966	1,154	1,148	1,346
Cotton	292	284	314	307	306	275	295	304	327	369	422	381	418	458	498
Tobacco	93	88	127	89	87	91	101	89	85	102	101	104	110	137	178
Tea	23	25	23	23	20	24	25	19	26	23	25	28	27	29	31
Eggs	30	26	27	28	29	30	30	41	41	41	20	34	37	41	44
Meat	569	500	500	525	550	574	584	589	589	567	575	580	579	575	605